27 March 2024

Soil Geochemical Results Expand Lithium Anomalies at Higginsville

Spodumene Confirmed across Multiple Areas at Spargoville and Widgiemooltha

Highlights

- **New results from on-going soil geochemical sampling program expand previously reported lithium anomalies at the Spargoville and Widgiemooltha Projects[1]**
- **Planned Reverse Circulation (RC) drilling program at Spargoville Project expanded to incorporate new larger area of prospectivity – Drilling expected to commence in late April**
- **X-ray Diffraction ("XRD") and Scanning Electron Microscope ("SEM") confirms Spodumene in multiple areas around Spargoville and Widgiemooltha Projects**
- **Highest spodumene content of 67.2% per weight percent (Wt.%) correlates with highest grade of 5.05% Li_2O at Flynn-Giles Prospect at Spargoville Project (KCSA071) (refer to Table 2)**

Spargoville Soil Geochemical Program Update

Kali Metals Limited (**ASX: KM1**) ("**Kali Metals**" or "**the Company**") is pleased to announce that the results from the soil geochemical program have expanded previously reported lithium anomalies at the Spargoville and Widgiemooltha Projects at Higginsville (refer to Figure 1). The Flynn-Giles Prospect anomaly, within the Spargoville Project, has been extended to the NNE by another ~600m, and the early positive results received from the Parker-Grubb anomaly has shown an expansion of over ~2.0kms to the northeast, running in parallel to the main Flynn-Giles anomaly trend.

The regional soil geochemical program that commenced in February this year continues to collect soil samples across the wider Spargoville Project area. The results to date have highlighted a large-scale lithium system with anomalism that aligns with the Company's interpreted lithium trends.

The results show the Spargoville Project has a larger prospective area for lithium than initially anticipated, and these encouraging findings will be incorporated into the upcoming RC drilling program.

The regional scale soil geochemical program will continue to cover the Widgiemooltha Project before expanding out to cover the Company's other six lithium projects.

[1] ASX announcement, More High-Grade Lithium at Higginsville Lithium District, 13 February 2024

Graeme Sloan Managing Director said:

"Our soil geochemical program continues to deliver results across the Spargoville Project with multiple trends of anomalies now spanning over a combined strike of 4km. The pegmatite system at the Spargoville Project exceeds our initial expectations, prompting us to expand the limits of our initial exploration RC drill program which we expect to commence in late April this year.".

Furthermore, the identification of multiple sites containing spodumene at Higginsville using the XRD and SEM techniques enhances the Company's confidence going into our maiden drill program and confirms that the targets are in the optimal location with respect to the pegmatite fractionation sequence".

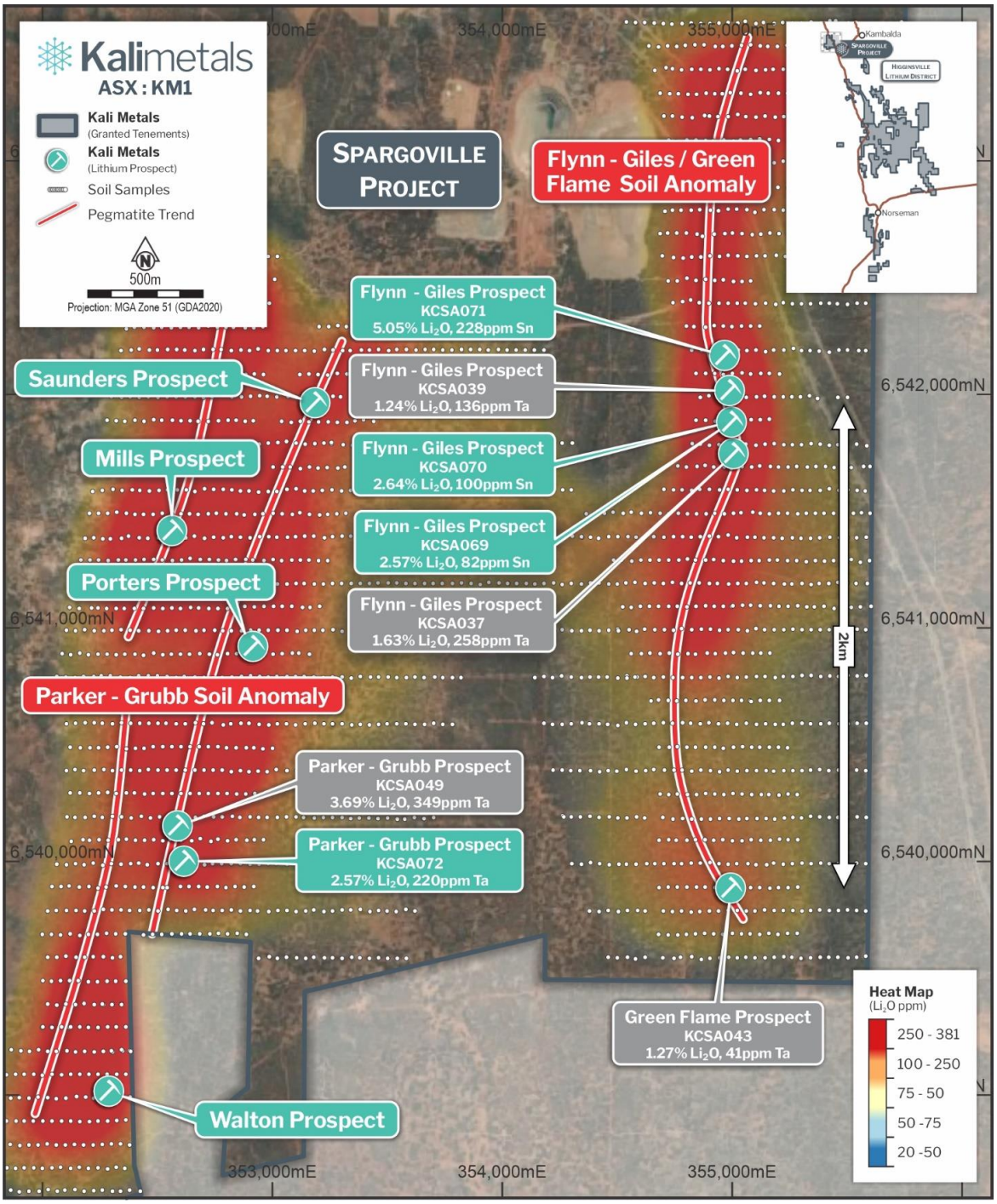

Figure 1. Spargoville Project, Updated soil geochemical anomaly map

Spodumene confirmed by recent XRD and SEM analysis

The Company has also received positive XRD and SEM analysis from both Spargoville and Widgiemooltha confirming spodumene as the dominant mineral in those areas. The XRD and SEM results are from the most recent rock chip sampling program which returned assay results of up to 5.05% Li_20[2]. The Spargoville and Widgiemooltha Projects are only two of the eight project areas within the Company's Higginsville Lithium District in Western Australia.

Obtaining early confirmation of spodumene as the dominant lithium bearing mineral across the first two areas of active exploration at the Higginsville Lithium District is a major step forward for the Company.

Quantitative Sample Analysis

A total of eight samples of pegmatite thought to contain weathered spodumene were selected across the Spargoville and Widgiemooltha Projects to ascertain the whole rock mineralogy and to confirm the presence of spodumene.

Some of the samples (KCSA069-71) were taken from variously weathered hand specimens containing visually identified spodumene in the historic workings at the Flynn-Giles Prospect. Other samples (KCSA076-87) were taken from outcropping pegmatites at Widgiemooltha thought to contain spodumene.

The mix of the rock chip samples and their resultant spodumene contents will provide the exploration team with more confidence in the visual recognition of weathered spodumene in the field and will assist in our future exploration activities (Refer Table 1).

The eight samples were sent to RSC for XRD analysis with two of those samples (KCSA080 and KCSA085) selected for further SEM-automated mineralogy analysis (Refer Table 2). 4mm thick polished slabs were prepared for the SEM samples with the opposing side of the samples used for the correspond XRD analysis. All other samples were pulverised prior to undergoing XRD analysis.

Table 1. *State of weathered Spodumene observed in samples taken from workings at Flynn-Giles*

Samples	Project	State of Weathering
KCSA069	Spargoville Project	Significantly
KCSA070	Spargoville Project	Partially
KCSA071	Spargoville Project	Minor

Table 2.*The results of the rock chip sampling XRD analysis program*

Samples	Project	Assay Li_2O (%)	Spodumene (wt.%)	Quartz (wt.%)	Albite (wt.%)	Muscovite (wt.%)	Microcline (wt.%)	Orthoclase (wt.%)
KCSA071	Spargoville	**5.05**	**67.2**	21.1	0.8	2.3	<0.1	<0.1
KCSA080	Widgiemooltha	**2.21**	**45.4**	28.9	18.0	4.6	3.1	>0.1
KCSA085	Widgiemooltha	**2.14**	**43.2**	40.9	10.3	4.0	1.6	<0.1
KCSA070	Spargoville	**2.64**	**22.2**	59.0	3.0	1.3	2.8	<0.1
KCSA069	Spargoville	**2.57**	**20.3**	33.2	<0.1	7.4	1.4	<0.1
KCSA076	Spargoville	0.46	4.2	27.9	43.3	2.5	19.1	1.8
KCSA079	Widgiemooltha	0.73	4.0	8.6	7.3	5.6	62.6	6.9
KCSA087	Widgiemooltha	0.63	8.3	34.1	49.4	1.6	6.6	<0.1

[2] ASX announcement, More High-Grade Lithium at Higginsville Lithium District, 13 February 2024

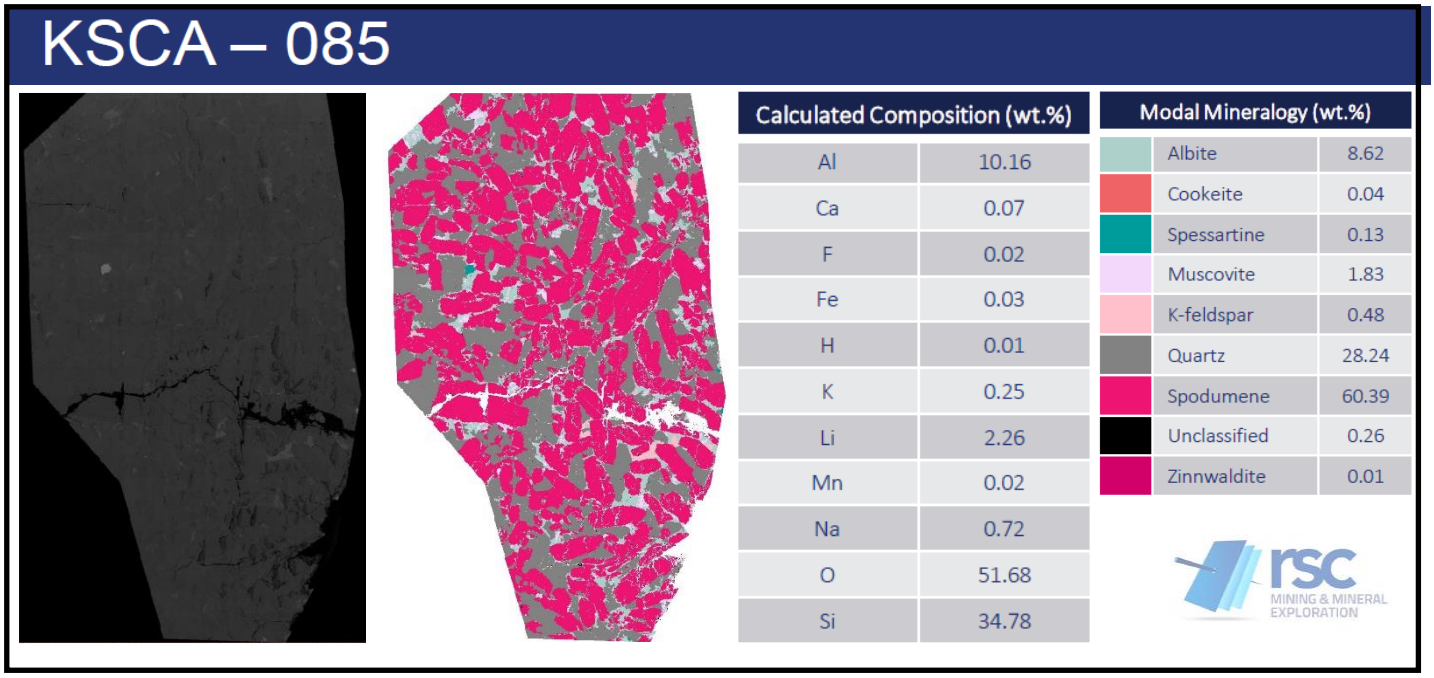

Figure 2. SEM analysis of KSCA-085 showing calculated wt.% values

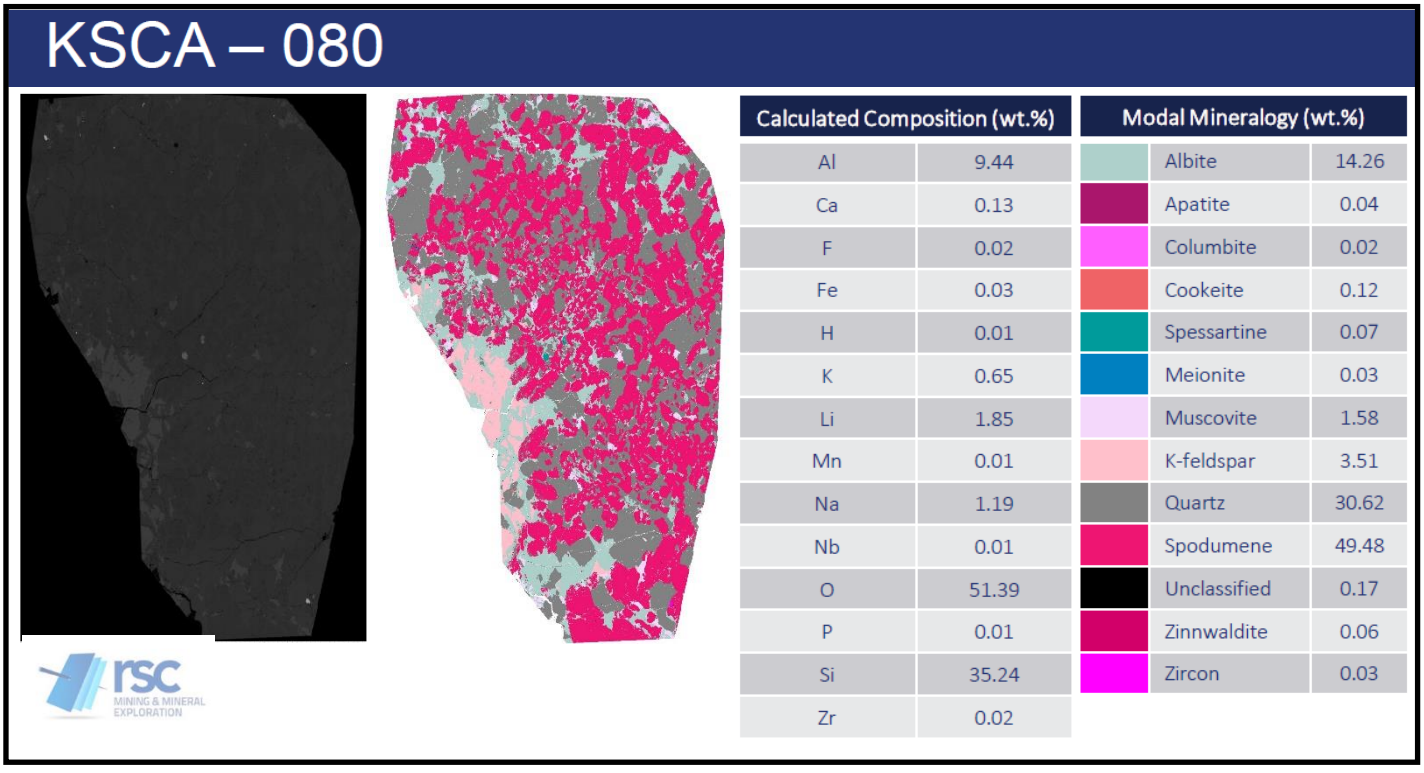

Figure 3. SEM analysis of KSCA-080 showing calculated wt.% values

Authorised for release by the Board of Kali Metals Limited.

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About Kali Metals Limited

Kali Metals' (ASX: KM1) portfolio of assets represents one of the largest and most prospective exploration packages across Australia's world leading hard-rock lithium fields. Kali's 3,854km^2 exploration tenure is located near existing, emerging, and unexplored lithium and critical minerals regions in WA including the Pilbara and Eastern Yilgarn and the Lachlan Fold Belt in NSW and Victoria.

Kali Metals has a team of well credentialed professionals who are focused on exploring and developing commercial lithium resources from its highly prospective tenements and identifying new strategic assets to add to the portfolio. Lithium is a critical component in the production of electric vehicles and renewable energy storage systems. With the rapid growth of these industries, the demand for lithium is expected to increase significantly in the coming years. Kali Metals is committed to playing a key role in meeting this demand and powering the global clean energy transition.

Forward Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Kali's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Kali believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Competent Person Statement

Exploration Results

The information in this announcement that relates to Exploration Results for Kali Metals and complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results and is based on, and fairly represents, information and supporting documentation prepared by Mr Stuart Peterson, a fulltime employee of Kali Metals Limited. Mr Peterson is a member of the AusIMM, and he has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Peterson considers that the information in the market announcement is an accurate representation of the available data and studies for the mining project. Mr Peterson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Previously Reported Results

The information in this announcement that relates to Exploration Results is extracted from the ASX announcements (Original Announcements), as referenced, which are available at www.kalimetals.com.au. Kali confirms that it is not aware of any new information or data that materially affects the information included in the Original Announcements and, that all material assumptions and technical parameters underpinning the estimates in the Original Announcements continue to apply and have not materially changed. Kali confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original announcement.

JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data		
Criteria	***JORC Code Explanation***	**Commentary**
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	**Surface Samples** *Rocks* Samples reported in this release are surface rock chips collected from various pegmatite bodies across the project area and are representative of the outcrop they were collected from, given the nature of pegmatites having variable grain size and mineralogy. The rock samples collected were between 0.5kg and 3kg in weight. *Soils* 250g soil samples for analysis were taken from a depth of ~15 centimetres and placed into paper geochemical sample bags. Sampling protocols, and quality assurance and quality control were as per industry best practice procedures. All samples were submitted to Intertek Minerals in Kalgoorlie for four-acid digestion by inductively coupled plasma mass spectrometry (ICPMS) and inductively coupled plasma optical spectrometry (ICPOES). **Drill Samples** No drill samples are reported in this announcement.
Drilling Techniques	*Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).*	No drill samples are reported in this announcement.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	No drill samples are reported in this announcement. Other samples reported in this release are individual rock chips and recovery is not relevant.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	Rock chips were collected as part of a detailed surface geological mapping *program*. Qualitative field logging of the rocks is completed in the field including assessment of weathering, lithology, alteration, veining, mineralisation, and mineralogy. Soil sample sites were photographed for future reference.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Surface Samples *Rocks* No field sub-sampling techniques were employed. Sample preparation following standard industry practice was un-

	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled*	dertaken at Intertek, Perth laboratory, where the samples received were sorted and dried. All rock chips were initially crushed and then pulverize using a vibrating disc pulveriser to produce a homogenous, representative sample. Samples were then weighed and sent for their respective analysis. Internal screen QAQC is done at 90% passing 75um. Rock chips were collected from outcropping pegmatite bodies. Field geologists selected samples that best represented the geology of the pegmatite body. Rocks collected were assessed for their representativeness with grainsize of each pegmatite taken in account to ensure the sample size was appropriate. *SEM* Rocks were cut into the following: 32.3 x 40.3 x 3mm for KSCA080, 35.9 x 58.4 x 6mm slab for KSCA085. The surface of the samples were polished using 240, 600 and 1200 grit polishing discs, then carbon-coated prior to analyses. *XRD* Rocks where initially crushed to 20 microns (0.02mm), then went through a micronizing process where they were ground to 4 microns (0.004mm). One twin slab from each rock chip was pulverised and used for XRD analysis. *Soils* Soil samples were sampled via a shovel and then sieved to collect a 250g sample at -2mm size fraction for analysis. Sample preparation following standard industry practice was undertaken at ALS, Perth laboratory, where the samples received were sorted and dried. Samples were dried, with coarse crushing to ~10 millimetres, followed by pulverisation of the entire sample in an LM5 or equivalent pulverising mill to a grind size of 85%, passing 75 micron. The sample sizes are considered adequate for the material being sampled. The sample preparation followed industry best practice for base metals exploration.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model,*	Surface Samples All rock samples were analysed by the following methods: Mixed acid digest & peroxide fusion with ICPMS & ICPOES for 61 elements.

	reading times, calibrations factors applied and their derivation, etc. *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	All soil samples were analysed by the following methods: Multi-element 4-Acid Digest with ICPMS & ICPOES for 48 elements. Drill samples No Drill Samples were reported in this announcement. These techniques are considered a total digest for all relevant minerals. Field duplicates were taken at a rate of 1:100 samples. Intertek Minerals internal QAQC process was used for assaying of duplicate, blank and standard reference material. QAQC was entered at the following rates: duplicates 1:30, blanks and standards 1:25. This is considered sufficient for first pass geochemical sampling such as soils. 8 samples underwent XRD analysis, two of those also underwent analysis via scanning electron microscope (SEM). Both methods are used to identify and quantify mineral composition. Scanning electron microscope (SEM) analysis was undertaken by RSC Consulting Limited at their West Perth office using a Hitachi SU-3900 equipped with 2 Bruker X-Flash 6|60 detectors, the instrument can deliver automated mineralogy using the Automated rapid Scanning for Mineral and Rock Characterisation by SEM (AMICS). The instrument has detectors for analysing energy dispersive spectrometry (EDS), backscatter electron (BSE), secondary electron (SE) and can run on ultra-variable pressure (UVD). XRD analysis was undertaken by Sietronics Analysis Services in Canberra using a Bruker-AXS D8 Endeavor XRD with copper radiation at 40kV and 25mA, over a range of 5 to 80 degrees 2 theta, with a 0.02-degree step size and 2 second per step count time. •The XRD patterns were interpreted using Profex v.5.2.6 with the Crystallography Open Database (COD). The BGMN method and the fundamental parameters approach were applied for quantitative Rietveld refinement and peak profile modelling, respectively. Preferred orientation of spodumene, albite, micro-

		cline, orthoclase, sanidine, muscovite (2M1) and clinochlore was accounted for by introducing higher-order spherical harmonics.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data*	Primary data was collected by employees of the Company at the Project site. All measurements and observations were recorded digitally and entered into the Company's database. Data verification and validation is checked upon entry into the database. Where lithium assay results were provided by the laboratory in parts per million (ppm), they were multiplied by a conversion factor of 2.15 to report as % Li_2O.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Sample locations are determined by handheld GPS with and accuracy of approximately 5m. The grid system used is MGA 1994 zone 51.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied*	Sample spacing for rock chip sampling has been determined solely by geological mapping and no grade continuity is implied. Soil sampling was conducted on staggered 100 x 40m spacing at Spargoville and a 200m x 40m spacing at Widgiemooltha. This is considered appropriate for first pass exploration. No sample compositing has been applied. No Mineral Resources have been estimated.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Soil Sampling was designed to cross known structures interpreted to be associated with known LCT pegmatite intrusions. No known sampling bias has been introduced.
Sample security	*The measures taken to ensure sample security*	Rock chip samples were placed into calico bags in the field. Calico bags were placed in a poly weave bag and cabled tied closed at the top. Poly weave bags were placed inside a large bulka bag prior to transport. Bulka bags and cardboard boxes were delivered to Intertek Minerals Kalgooorlie laboratory before being transported to the Intertek Minerals laboratory in Perth by the laboratories freight contractor. RSC sent samples for SEM analysis to a local specialist, and then return for analysis. Samples for XRD analysis were sent to Canberra by RSC's freight contractor.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been conducted in relation to surface rock chip or soil sampling.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Higginsville project is made up of 207 Mining leases, Exploration Licences and prospecting claims spread over 1517 square Kms. Tenement details are available in the company's prospectus. The Company owns 100% of the Lithium and associated battery minerals rights through a JV agreement with Karora Resources. The tenement package is in good standing and managed by Karora resources tenement management team. There are no impediments to operate on the tenement holding outside the current requirements under DMIRS, national parks or the EPA.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Historical exploration and mining within the tenement holding has been ongoing since the turn of the 20th century with the main commodity explored and mined being Gold and Nickel. Very little Lithium exploration has been performed over the ground. The drilling and sampling database from the previous explorers will provide a large amount of information to assist in the exploration for Lithium.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Higginsville project includes elements of the Archean Kurnalpi and Kalgoorlie Terranes. Many of the project tenements occur west of the Boulder-Lefroy Fault within the Kalgoorlie Terrane. The tenements largely cover greenstone rocks which comprise ultramafic, mafic, and felsic volcanics, mafic intrusives and sediments
Drill hole information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *• easting and northing of the drill hole collar* *• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *• dip and azimuth of the hole* *• down hole length and interception depth* *• hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	No new drill hole locations are included in this report. Results outlined in this release are related to rock chip samples only. Surface rocks sampling information is included within the body of the report.

Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No data aggregation techniques have been applied.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	No Relation is evident or applicable for rock chip sampling results.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Refer to figures in the body of the text.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	The Company believes that the ASX announcement is a balanced report with all material results reported.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Everything meaningful and material is disclosed in the body of the report. Geological observations have been factored into the report.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or large-scale step out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Results from geochemical sampling and mapping programs will be synthesised to prioritise pegmatite bodies that required additional intensive sampling and mapping to determine their potential to support a drilling campaign.